
BioMax Environmental
Environmental Consulting and Industrial Hygiene Services

February 20th, 2008

Mr. Doug Button
Deputy Director
Real Estate Services Division
707 Third Street - 8th Floor
West Sacramento, CA 95605

**Mitigation Procedures Supplement
Floor 23 Mini Coffee Bar and Employee Break Room Areas
Department of General Services Board of Equalization Building
450 N. Street
Sacramento, California**

Dear Mr. Button,

As per your request, BioMax Environmental, LLC (BioMax) is pleased to provide you with the following recommendations for procedures pertaining to the microbial abatement activities associated with the mini coffee bar and employee break room areas located on the 23rd Floor level within 450 N. Street, Sacramento, California (subject building). BioMax understands that these procedures have been requested by your offices, at the specific direction of the Department of General Services, in an effort to establish the necessary criteria under which the forthcoming microbial mitigative efforts will be planned and performed within noted areas which are currently vacated by the Board of Equalization (BOE) staff. The applicable mini coffee bar and break room areas pertaining to these supplemental procedures have been identified within thirteen (13) unique locations present within the 23rd floor within offices and administrative areas including 2309, 2312, 2313, 2316, 2323, 2326, 2331, 2330, 2332, 2335, 2336, 2302, and 2339. A detailed site map will be maintained by the site mitigation contractor, JLS, and will be available for review by DGS and BOE representatives within the construction site offices located on the 23rd floor in office 2311.

As such, these recommended mitigation procedures are intended as a means of setting preliminary performance criteria goals during the onset and continuation of this mitigative effort. Pursuant to an ongoing agreement between the BOE and DGS, these recommended procedures will be reviewed, commented upon and approved by BOE's representative Industrial Hygienist, Hygientech, prior to implementation. Any revisions to these recommended procedures and/or significant deviations performed by the selected mitigation contractor with the procedures noted herein shall only be performed under the review, guidance, and approval of the Project CIH, DGS and BOE representatives.

BioMax Environmental

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February 20th, 2008**DRAFT**

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These procedures have been prepared by Mr. Michael A. Polkabla, CIH, REA, (Project CIH) of BioMax in accordance with currently recognized microbial assessment and sampling guideline procedures. Mr. Polkabla has been certified in the Comprehensive Practice of Industrial Hygiene by the American Board of Industrial Hygiene and holds the right to the designation "Certified Industrial Hygienist" (CIH) under certification number CP 7104. Mr. Polkabla is also certified by the California Environmental Protection Agency (Cal/EPA) as a Class I Registered Environmental Assessor (REA) under Cal/EPA certification number 05011. Hence, BioMax proposes the following mitigative procedures pertaining to the noted mini coffee bar and break room areas for consideration, review, and appropriate implementation at the direction and approval of the Department of General Services. Please note that these location-specific protocols are intended to supplement existing mitigative procedures which have been previously developed by BioMax and approved by DGS, entitled Mitigation Procedures for Floor 23 East, dated January 31st, 2008. As such, all previously approved procedures are hereby incorporated into these supplemental procedures and should be reviewed for further reference as necessary.

1. **Establishment of Mini Coffee Bar and Break Room Containment Systems** - Prior to the performance of microbial mitigative measures, BioMax recommends that the selected microbial abatement contractor erect critical containment barriers and systems appropriate to the affected areas which contains and/or isolates the interior mini coffee bar and break room areas previously identified in accordance with the previously referenced protocols. The selected contractor shall be directed to either utilize existing containment systems and/or to erect stand-alone containment barriers for the purposes of this work activity in accordance with the performance criteria previously established.
2. **Ceiling Containment System** - The containment system shall be designed in a manner wherein the existing work area ceiling is sealed in a critical barrier system designed to isolate the current ceiling tile materials and ceiling plenum areas from the working areas of the established containment system below. As such, containment systems shall be erected from floor to (and including) ceiling level materials and will include the establishment of a functional plastic barrier along the lower (workplace) side of the current acoustic ceiling tile materials thus isolating the ceiling plenum from the active working areas within the established containment.
3. **Supplemental Air Scrubbing and Negative Air Machines** - Supplementing the existing negative air machines (designed to establish and maintain negative air pressure within the containment systems) a series of HEPA filtered air scrubbing machines shall also be located within of each of the affected work areas (as physical space allows) during all deconstruction and forthcoming mitigative activities. Such air scrubbing machines shall be oriented within active working areas and portable in their design so as to be readily relocated to additional work areas as necessary. Supplemental air scrubbing machines may also be placed within areas outside of the working and/or containment areas as an additional precautionary measure as necessary.
4. **Cleaning and Removal of Remaining Personal Furnishings** - During the initial phases of the mitigative effort, BioMax recommends that all interior personal furnishings

currently present within the containment system be cleaned/HEPA vacuumed, boxed, and removed from the mini coffee bar and break room areas prior to forthcoming physical deconstruction within the affected containment areas. Within areas which are currently not under containment controls, BioMax recommends that BOE's environmental consultant, Hygientech, manages and oversees such removal of personal contents in coordination with DGS's site mitigation contractor. Areas which are currently under negative pressure containment and active mitigative procedures will necessitate the physical removal of such personal materials by DGS's mitigation contractor JLS. Under such containment activities, the removal effort shall employ the establishment and use of a task-specific decontamination corridor used to relocate the bagged/sealed materials from the containment area into a cleaned staging area for forthcoming Hygientech inspection and removal based on BOE's existing furnishing removal protocols. Special precautions must be made during this removal to inventory and segment these personal furnishings into manageable sized units so as to effectively remove the items while precluding the transmission of fugitive particulate emissions during such removal. It is anticipated that these materials shall be stored on the 23rd floor in a designated non-containment area located out of the established containment systems for forthcoming inspection and removal under BOE's previously noted furnishing removal protocols.

5. **Break Room Flooring Removal** – As directed by the Project CIH, following the physical removal of all interior personal and/or office furnishings within the break room areas, the mitigation contractor shall remove any visibly water damaged interior flooring and underlayment utilizing appropriate dust suppression and material extraction methods. All removed flooring shall be similarly sealed in manageable sized units so as to effectively remove the materials while precluding fugitive particulate emissions. Following any floor material removal, a reassessment of subflooring and underlayment materials shall be performed to identify any newly identified moisture indicator staining and associated areas requiring any further mitigative efforts. It is currently anticipated that flooring shall be removed a minimum of one tile segment from the current cabinet areas to allow appropriate visual inspection of underlayment material. In the event that subflooring removal has revealed evidence of current or past moisture damages, additional tile flooring material shall be removed until a margin of at least one tile width has been achieved at the outer margin (extent) of physical damage.
6. **Mini Coffee Bar and Break Room Cabinet Removal** - BioMax specifically recommends that all physically damaged and stained sink cabinets be removed for appropriate inspection of the interior, underlayment, and adjacent cavities associated with the built-in sink and cabinet structures wherever possible. The extent of preliminary cabinet material removal shall include physical removal of cabinet base horizontal and vertical cabinet backing materials within each of the noted mini coffee bar and break room areas. Any affected interior cabinet, wallboard and/or flooring materials shall also be removed, wherever feasible, to the extent of any visible staining, and at a minimum and an additional margin to "visibly unaffected" materials wherever practicable. Removal of potentially moisture impacted and mold damaged materials may also employ the use of appropriate item-specific containment methods and systems (such as sealed

plastic glove-bag containment systems, or equivalent) applicable to the materials being removed at the direction of the Project CIH. BioMax currently anticipates that all mini coffee bar and break room cabinetry materials shall be removed for subsequent interior inspection of the physical condition of all underlayment materials within the identified affected areas. Any additional underlayment materials exhibiting visible signs of moisture staining shall also be identified, decontaminated, and/or removed as noted below.

7. **Other Potentially Affected Areas Encountered** - Other potentially affected areas and building materials encountered and/or identified during these deconstructive and investigative stages, such as adjacent interior walls, flooring, flooring underlayment, etc., must be thoroughly inspected during these deconstructive stages to identify any potential signs of additional microbial related materials and water damage indicators. In the event that additional moisture/mold damaged materials are encountered, the Project CIH shall be contacted for review of such findings and to obtain additional material specific direction. In general, all microbial impacted materials shall be removed to the extent of visible staining and at least 2 feet beyond such identified perimeters, wherever possible.
8. **Decontamination and Treatment** - All remaining moisture/mold affected porous and non-porous building materials deemed infeasible for removal and/or disposal (due to physical constraints and/or structural integrity concerns) shall be inspected and receive a series of decontamination treatment measures designed to minimize and control the presence of microbial related substances. Decontamination methods employed shall, at a minimum, include treatment of all identified surfaces with a series of thorough mildicide solution (such as 20 parts water to 1 part chlorine soln. or similar commercial grade mildicide products) used in accordance with manufacturer's published information and guidelines. Depending on specific level of visible staining/deposition, wet treatment applications may be followed by a series of thorough HEPA filtered vacuuming procedures using power sanding and/or bristle brush agitation. The duration and frequency of mildicide and HEPA sanding/brushing applications employed may vary depending on condition of local material contamination but shall be sufficient in removing all particulate debris and decontaminating all visible surface staining to levels deemed by the Project CIH to be consistent with representative background levels.
9. **Additional Mitigative Measures** - Reasonable additional mitigative measures and controls may be required, as necessary, upon discovery of additional contaminated materials as well as review of additional site inspection findings and observations performed at regular and periodic intervals during this scope of work. BioMax would certainly be happy to provide regular and ongoing consultation with the selected mitigation contractor as well as with BOE's site industrial hygiene consultant during the performance of these activities as needed and upon request. Any significant findings pertaining to additional sampling assessment activities performed by BOE's industrial hygiene consultant shall also be reviewed by the Project CIH wherein appropriate action and/or revision to these recommended protocols will be implemented through verbal and written amendments.

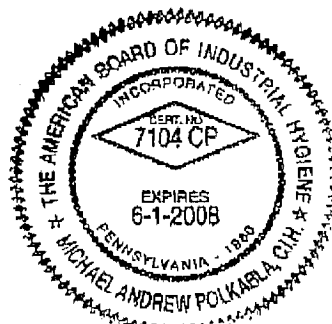
10. **Clearance Inspection and Assessment** - Upon completion of mitigation efforts performed by the selected microbial abatement contractor, BioMax shall perform a post mitigative clearance assessment in accordance with the approved clearance criteria developed for this scope of work under a separate summary document. As part of this "clearance" verification process, the provision of appropriate access for parallel inspection and review of sampling provided to BOE and their consultants for any additional review and comment shall be accommodated.
11. **Building Leak Testing Verification** - Following the performance of these mitigative measures and achievement of acceptable clearance criteria, the designated site reconstruction contractor is strongly encouraged to verify that repairs to any faulty and/or deficient plumbing and/or sealing systems have been appropriately inspected, reconfigured, replaced/repared, and function tested prior to the reconstruction of the affected interior structures and cavities. Certainly, the repair/replacement and/or establishment of any such additional engineering controls (as recommended through additional professional consultation) must be performed and implemented in accordance with applicable standards, building codes, and ordinances, as necessary.
12. **Reconstruction Activities** - Upon completion, reconstruction of interior structural materials should only be undertaken utilizing visibly clean (hand selected) construction grade materials in accordance with applicable building codes and requirements. The reconstruction contractor should be mandated to only select materials which are obtained from reputable commercial sources and which are believed and visually verified to be free from elevated microbial contamination and/or elevated moisture content. New building materials, which are notably moist and/or visibly stained, should NOT be used during the reconstruction of the subject structure.
13. **Reasonable Additional Measures** - Reasonable additional assessment and mitigative measures may also be required upon the identification of new or previously undiscovered materials and/or information related to moisture/microbial impacts, as necessary. Any recurrence of moisture intrusion following reconstruction should certainly be reviewed and addressed through further professional consultation, as necessary. BioMax is certainly prepared to provide such additional consultation pertaining to these and any follow-up investigative measures upon request.

BioMax believes that the proposed recommended procedures outlined above are consistent with standard industry microbial mitigative practices and prudent industrial hygiene hazard control methods. Please do not hesitate to contact our offices directly at (510) 724-3100 if you have any additional questions, comments about these recommendations, or require further assistance regarding this important matter.

Sincerely,



Michael A. Polkabila, CIH, REA
Vice President, Principal



LIMITATIONS

Please note that the professional opinions presented in this review are intended for the sole use of the California State Department of General Services (DGS) and their designated beneficiaries. No other party should rely on the information contained herein without the prior written consent of BioMax Environmental and DGS. The professional opinions provided herein are based on BioMax's review and understanding of current site information and observed site conditions present within the areas inspected at the time these services were performed. Professional recommendations provided as part of this limited scope of work are intended for client consideration only and are not intended as a professional or regulatory mandate. Implementation of any of the above measures or recommendations does not, in any way, warrant the day-to-day health and/or safety of building occupants, residents, site workers, nor regulatory or building code compliance status during normal and changing environmental conditions. As microbial contamination, by nature, may change over time due to additional moisture intrusion, favorable growth conditions, and changing environments, the findings of this report are subject to change in the event that such conditions and/or environments arise. Also, the professional opinions expressed here are subject to revision in the event that new or previously undiscovered information is obtained or uncovered.

The information contained in this and any other applicable communication is for consideration purposes only. It is not intended, nor should it be construed as providing legal advice or warranting any level of safety or regulatory compliance. The sole purpose of such information is to assist with the anticipation, identification, evaluation and control of elevated and/or unnecessary health of physical hazards. Any action taken based on this information, including but not limited to opinions, suggestions and recommendations, whether implied or expressed, is the sole responsibility of the individual taking the action. The management of acceptable health and safety is criteria dependent and situation specific in nature, therefore requiring extensive knowledge and prudent value assessments so as to be properly determined and maintained.

These services were performed by BioMax in accordance with generally accepted professional industrial hygiene principals, practices, and standards of care. Under the existing Industrial Hygiene Definition and Registration Act, all reports, opinions or official documents prepared by a Certified Industrial Hygienist (CIH) constitutes an expression of professional opinion regarding those facts or findings which are subject of a certification and does not constitute a warranty or guarantee, either expressed or implied.